(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date 28 April 2005 (28.04.2005)

PCT

(10) International Publication Number WO 2005/038248 A1

(51) International Patent Classification⁷: 11/06, F16C 27/06

F03B 13/18,

(21) International Application Number:

PCT/DK2004/000705

- (22) International Filing Date: 14 October 2004 (14.10.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: PCT/DK03/00693

14 October 2003 (14.10.2003) DK

- (71) Applicant (for all designated States except US): WAVE STAR ENERGY ApS [DK/DK]; Maglemosevej 61, DK-2920 Charlottenlund (DK).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): RESEN STEEN-STRUP, Per [DK/DK]; Maglemosevej 61, DK-2920 Charlottenlund (DK). ARPE HANSEN, Niels [DK/DK]; Grønlandsparken 88C, DK-6715 Esbjerg N (DK). HANSEN, Keld [DK/DK]; Hovedgaden 63, DK-6621 Gesten (DK).

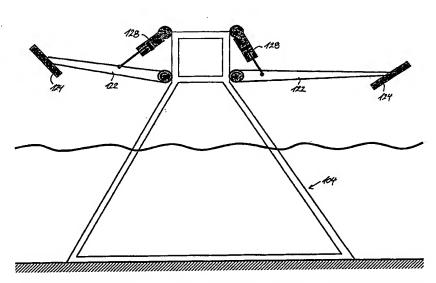
- (74) Agent: INSPICOS A/S; Bøge Allé 5, P.O. Box 45, DK-2970 Hørsholm (DK).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: A WAVE POWER APPARATUS HAVING A FLOAT AND MEANS FOR LOCKING THE FLOAT IN A POSITION ABOVE THE OCEAN SURFACE



(57) Abstract: A wave power apparatus includes at least one rotationally supported arm (122) which carries a float (124) at its free end, so that a translational movement of the float caused by a wave results in rotation of the arm (122). The apparatus comprises power conversion means for converting power transmitted from the wave to the arms into electric power, e.g. a hydraulic system, in which a hydraulic medium is displaced by the movement of the arm, the hydraulic system being coupled to an electric generator. The apparatus comprises a hydraulic lifting system for lifting the float out of the ocean and for locking the float in an upper position above the ocean surface, e.g. during extreme sea wave conditions, such as storm. The lifting system may comprise at least one pump for pumping hydraulic cylinders for lifting the arm out of the ocean.

2005/03824

WO 2005/038248 A1



 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.